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ECONOMIC TRENDS

ITEM	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1965		1966		
			YEAR	NOVEMBER	SEPTEMBER	OCTOBER	NOVEMBER
Prices:							
Prices received by farmers	1910-14=100	242	248	249	270	266	259
Crops	1910-14=100	223	232	219	236	233	230
Livestock and products	1910-14=100	258	261	275	299	294	284
Prices paid, interest, taxes and wage rates	1910-14=100	293	321	322	337	337	337
Family living items	1910-14=100	286	306	307	318	318	318
Production items	1910-14=100	262	276	276	289	287	286
Parity ratio		83	77	77	80	79	77
Wholesale prices, all commodities	1957-59=100	—	102.5	103.5	106.8	106.2	105.9
Commodities other than farm and food	1957-59=100	—	102.5	103.2	105.2	105.3	105.4
Farm products	1957-59=100	—	98.4	100.3	108.7	104.4	102.5
Food, processed	1957-59=100	—	105.1	107.6	113.8	112.4	110.9
Consumer price index, all items	1957-59=100	—	109.9	110.6	114.1	114.5	—
Food	1957-59=100	—	108.8	109.7	115.6	115.6	—
Farm Food Market Basket:¹							
Retail cost	Dollars	983	1,042	1,046	1,117	1,114	—
Farm value	Dollars	388	409	414	453	435	—
Farm-retail spread	Dollars	595	633	632	664	679	—
Farmers' share of retail cost	Per cent	39	39	40	41	39	—
Farm Income:							
Volume of farm marketings	1957-59=100	—	119	167	138	178	177
Cash receipts from farm marketings	Million dollars	32,247	39,187	4,494	4,192	5,324	4,900
Crops	Million dollars	13,766	17,334	2,428	1,933	2,960	2,700
Livestock and products	Million dollars	18,481	21,853	2,066	2,259	2,364	2,200
Realized gross income ²	Billion dollars	—	44.9	—	49.8	—	—
Farm production expenses ²	Billion dollars	—	30.7	—	33.8	—	—
Realized net income ²	Billion dollars	—	14.2	—	16.0	—	—
Agricultural Trade:							
Agricultural exports	Million dollars	4,105	6,299 ³	652	569	622	—
Agricultural imports	Million dollars	3,977	4,088 ³	399	415	388	—
Land Values:							
Average value per acre	1957-59=100	—	139	145	—	—	157
Total value of farm real estate	Billion dollars	—	159.4	165.4	—	—	179.7
Gross National Product:²							
Consumption ²	Billion dollars	457.3	681.2	—	744.6	—	—
Investment ²	Billion dollars	294.2	431.5	—	469.9	—	—
Government expenditures ²	Billion dollars	68.0	106.6	—	115.0	—	—
Net exports ²	Billion dollars	92.4	136.2	—	155.5	—	—
Billion dollars	2.7	7.0	—	4.2	—	—	—
Income and Spending: ⁴							
Personal income, annual rate	Billion dollars	365.3	535.1	553.2	590.0	594.4	597.6
Total retail sales, monthly rate	Million dollars	17,098	23,662	24,647	25,703	25,640	25,413
Retail sales of food group, monthly rate	Million dollars	4,160	5,577	5,757	5,947	5,951	—
Employment and Wages: ⁴							
Total civilian employment	Millions	64.9	72.2	72.9	74.2	74.2	75.1
Agricultural	Millions	6.0	4.6	4.3	4.0	4.0	4.1
Rate of unemployment	Per cent	5.5	4.6	4.2	3.8	3.9	3.7
Workweek in manufacturing	Hours	39.8	41.2	41.4	41.5	41.3	41.3
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	2.61	2.65	2.74	2.75	2.76
Industrial Production: ⁴							
Manufacturers' Shipments and Inventories: ⁴	1957-59=100	—	143	147	158	159	158
Total shipments, monthly rate	Million dollars	28,745	40,279	41,403	44,091	44,478	—
Total inventories, book value end of month	Million dollars	51,549	68,015	67,192	74,884	75,706	—
Total new orders, monthly rate	Million dollars	28,365	41,023	42,234	46,318	45,106	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1960-61—estimated monthly. ² Annual rates seasonally adjusted third quarter. ³ Preliminary. ⁴ Seasonally adjusted.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and

Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

THE AGRICULTURAL OUTLOOK

Prices received by farmers probably will be well maintained in the coming months, but at levels below the relatively high prices in early 1966. Prices have been declining since August. By December they were down around year-earlier levels for the first time in 1966, with livestock product prices averaging substantially below last winter period.

Relatively favorable producer prices for livestock and products during 1965 and 1966 resulted in a continued rise in slaughter of poultry and beef and, more recently, in a turnaround in the production of hogs, eggs and milk.

By the closing months of 1966, hog slaughter was running more than 14 per cent larger than a year earlier. Slaughter of fed cattle was up 7 to 10 per cent, and poultry about a tenth from year-earlier levels. Egg production also has turned up and by early December was running 4 per cent larger. Milk production in the last quarter of 1966 slightly exceeded levels of a year earlier, in contrast to an average of 3 per cent less in the first three quarters. These recent production increases will mean more of most livestock products this winter than last.

Consumer demand for food and farm products in general continues to expand, but not at as fast a rate as in the winter of 1965/66. This, plus the increased supplies of livestock products, is taking some of the upward pressure off retail food prices.

COMMODITY HIGHLIGHTS

The **feed grain** supply of 201 million tons for 1966/67 is 13 million below 1965/66 and 18 million below the 1960-64 average. The 1966 feed grain crop was estimated in December at 157 million tons, about equal to the record crop of last year, but the carryover of 43 million tons was 13 million less.

Prospects continue for strong domestic and

foreign demand in 1966/67. Exports late in 1966, however, were below the heavy shipments of last season—about 15 per cent less in October-November 1966. Nevertheless, the 1966 crop probably will again be well below total requirements and a further reduction in the carryover is in prospect—probably down to around 25 to 30 million tons at the close of 1966/67.

With the smaller supplies and strong demand, prices received by farmers for feed grains averaged 18 per cent higher during October-November than a year earlier. The seasonal rise in prices in 1966/67 is expected to be less pronounced than in 1965/66. Livestock feed/price ratios continued generally favorable for dairy-men, but were less favorable for hog and beef cattle feeders and poultrymen than last season.

Potato storage stocks on December 1 totaled 150 million hundredweight, up 1 per cent from a year earlier and record large. Stocks were 7 per cent smaller than a year ago in the Central States and down 2 per cent in the West, but up 10 per cent in the East. Supplies of frozen french fries, which account for about 15 per cent of annual per capita consumption, also were up substantially. Cold storage holdings December 1 amounted to 342 million pounds, compared with the relatively low level of 268 million a year ago.

Despite relatively large supplies, prices into early winter averaged substantially above a year earlier. The strength mainly reflected considerable storage losses in Idaho where a freeze at harvest time caused some damage. In addition to reducing the salable volume, the freeze hampered marketings of Idaho potatoes. Extra handling is needed to remove the damaged potatoes; shipments to fresh market were running sharply below year-earlier rates.

Dry edible bean supplies are burdensome this marketing season as a result of a record output

in 1966. Production, at 20.3 million hundred-weight, was 23 per cent above the short crop of 1965 and 10 per cent larger than the 1960-64 average.

Citrus production for 1966/67 was expected as of December 1 to reach a new record with a crop 24 per cent above 1965/66 and 49 per cent above the recent five-year average.

Early season movement of Florida oranges and grapefruit to fresh markets somewhat lagged the year-ago pace due to later maturity of fruit. Usage of oranges for processing through early December was moderately below a year earlier; that of grapefruit, moderately above. Processing of oranges in volume was expected to start in January. Shipping point and auction prices for Florida fresh oranges and grapefruit in mid-December were generally well below year-earlier levels.

Florida packers' carryover stocks of frozen orange concentrate at the start of the current season were substantially below a year earlier, but stocks of canned citrus items were materially larger, mainly because of increased quantities of grapefruit juice.

Output of principal processed items will likely be substantially larger than last season's pack and supplies will be plentiful. Prices of both fresh and processed citrus items during at least the first half of 1967 are expected to average well under 1966 levels.

Based on December 1 cold storage holdings, supplies of **fresh apples** and **grapes** available for marketing during the first half of 1967 will probably be moderately smaller than a year earlier. Substantially larger **pear** supplies are indicated. Shipping point prices for apples and grapes were generally above a year earlier, but those for pears were down.

The supply of **flue-cured tobacco** for 1966/67 is 2 per cent below 1965/66 and 6 per cent below the record 1964/65 level. Carryover stocks in mid-1966 were down 4½ per cent from the record high of a year earlier. The 1966 crop was about 4 per cent above the relatively small

1965 crop. A big increase in exports of flue-cured is likely in the current marketing year and this will result in a further sizable reduction in carryover by mid-1967.

The supply of **burley tobacco** is 3½ per cent below the comparatively high levels of the preceding two years. Carryover on October 1, 1966, was 1½ per cent below the record high of a year earlier. The 1966 burley crop is estimated at 6 per cent below 1965.

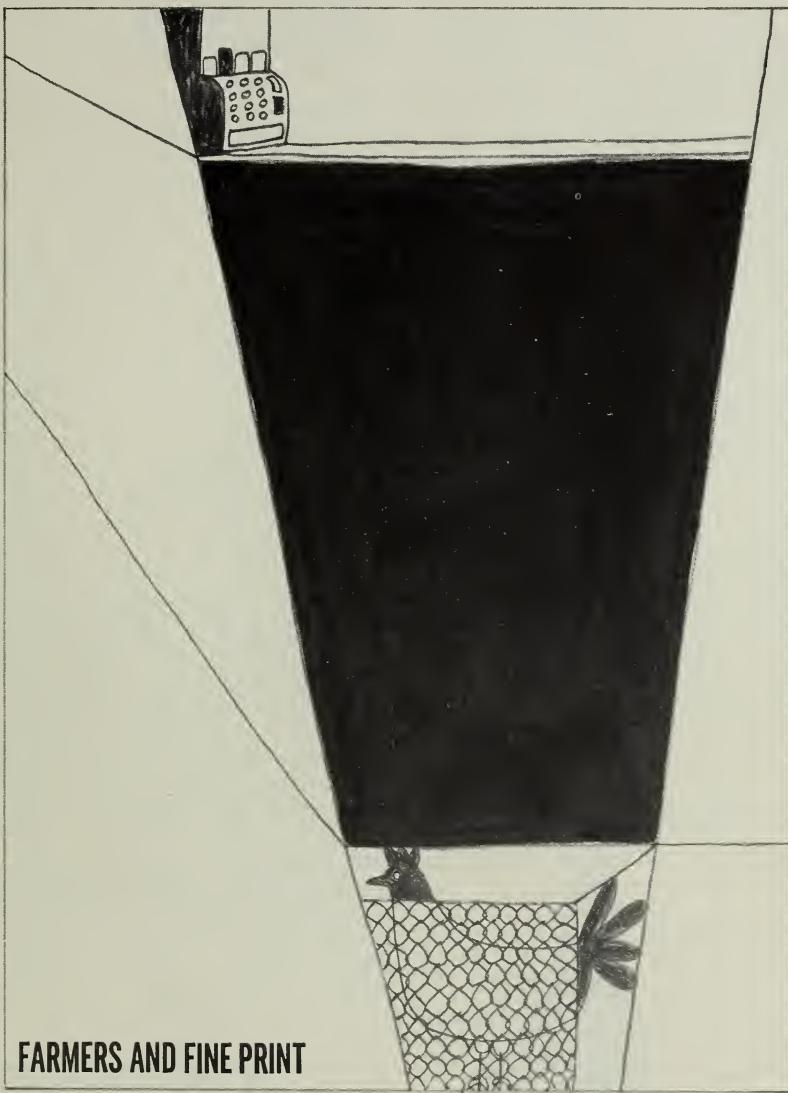
Prices received by producers in all flue-cured growing belts combined averaged record high and nearly 4 per cent above 1965. About 7 per cent of the 1966 crop was placed under loan—about the same proportion as in 1965. During the past year, sales from older crop loan stocks have been substantial.

On November 23, 1966, the Secretary of Agriculture announced that the 1967 national flue-cured quota—the third one under the acreage-poundage program—would be the same as in 1966. Though the national quota is unchanged, marketings in 1967 may be around one-tenth larger than in 1966. Many individual growers marketed less than their allocated quotas in 1966 and under the acreage-poundage program they are entitled to make up these undermarketings in the 1967 season.

Farm real estate prices moved higher in the year ended November 1, 1966. The national index of value per acre reached 157 (1957-59=100). This was 8 per cent above a year earlier. The previous year's increase was 6 per cent.

Regionally, 1966 increases ranged from 5 per cent in the Pacific Region to 12 per cent in the Corn Belt. Both the Southeast Region and the Delta States showed increases of 9 per cent.

Among the 48 states, Iowa, Missouri and Indiana led with gains of 13 per cent, followed by Illinois, Alabama, Georgia and Maryland with 12 per cent. Irrigated land prices in southern California appeared sluggish and offset stronger increases in the prices of dryland and pasture.



FARMERS AND FINE PRINT

Contract farming links production to profits, but parties who sign papers should read the fine print.

Chicken coops and checkout counters. They're not as far apart as they seem.

The two can be drawn together by a legal arrangement known as a *vertical coordination contract*. Most people call it contract farming. And it has brought a new

look to the agricultural scene.

"Coordination" between farmers and their suppliers or buyers facilitates farm and business operations, credit arrangements, forward pricing and market supplies to meet specifications.

Although coordination of production has been effected largely through pricing in the open market, it has also been achieved through farmer cooperatives, integration by large corporations—and even by roadside stands—and by vertical coordination con-

tracts between farm and off-farm firms.

The vertical coordination contract is usually in writing, but it needn't be.

In oversimplified form, it can be an across-the-fence oral understanding whereby the owner of a country store tells a farmer he'll supply him feed grains for his chickens if the farmer will in turn supply him eggs.

What happens if one party fails to deliver the goods, or the quality is inferior, or it's delivered at the wrong time or to the wrong place? The other party may be in trouble.

Courts may not enforce oral contracts if certain conditions are not met and the involved sum is large. This doesn't mean that a contract is enforceable just because it's in writing. But chances are it will be, if it meets standards established under applicable state and federal law.

Written or oral, a coordinating contract between a farmer and a contractor establishes legal rights and duties along with economic benefits and burdens.

And the legal aspects may affect the future well-being of farm people as much as the economic aspects.

Each provision of the contract between farmer and businessman should be clear and complete. And each party should know what his contract contains and its meaning under the law.

In many vertical coordination contracts, the farmer is a small, sole proprietor while the contractor is typically a large corporation. Their legal relationship is important. Whether the farmer is an independent contractor, or an agent or a laborer of the contractor, depends on contract provisions such as:

Are profits and losses to be shared? Who holds the rights of supervision and management? Can one party act on behalf of the other? Are the two firms separate and independent? What

type of skills are required to meet contract specifications?

These are some of the many questions that can, and usually should, be clarified in the contract. Relationships with third parties should also be made clear.

The farmer usually furnishes the land, buildings, labor and operating equipment required in the production process. In these areas, contracts often spell out requirements in precise detail. For example, "buffer" zones of land are often required for seed crops. Buildings, too, must often meet specific standards—if livestock are housed or if products are stored.

Contract clauses may range in scope from the management and marketing procedures to warranties and liabilities, and protective devices in case the contract is breached or unfulfilled.

To get some idea of the rights and responsibilities the provisions may represent, let's look at some typical contract farming situations:

A food chain contracts with a farmer for supplies of vegetables. The contract stipulates varieties to be grown. It may also specify planting and harvesting dates to meet projected seasonal demands. Too, it may require use of certain insecticides, some prepacking and a delivery method. The contractor thus exerts considerable managerial control over on-farm production and assumes marketing uncertainties.

Another example—one involving a third party—is a contract between a farmer and a feed dealer for the production of broilers. A broiler processor, to whom the farmer is to sell the broilers, may be named in the contract. Provisions are likely to cover not only the feed ration to be used, but also the breed and number of chickens to be fed and a specification that the broilers be sold when they reach a certain weight.

Although there is diversity in

vertical coordination contracts, they tend in general to shift some measure of managerial control to the off-farm firm. However, the off-farm firm frequently does not assume a corresponding measure of risks and responsibilities.

The complexity of market arrangements that now link suppliers, farmers and processors makes it important for a farmer to understand the provisions of his contracts as well as the economics of running his farm. (1)



Risk-Sharing Contracts Increasing In Popularity Among Turkey Producers

Turkey producers, particularly in the South, are turning more to risk-sharing contracts instead of straight loans from banks or financing by feed companies.

Latest estimates show risk-sharing contracts, usually with feed firms, account for 25 per cent of total production and are trending upward. Farms owned or leased by companies account for 10 to 15 per cent of the total output and are also projected upward. However, producers still rely on conventional loans from banks and other types of financing by feed companies for the remaining 60 to 65 per cent of their financing.

In risk-sharing contracts, some or all of the production risk and most of the major decisions are transferred from the producer to the contracting firm. The firm may agree to assume all or part of a loss on financing or it may guarantee a fixed price per head or per pound of turkey produced.

Feed firms accounted for 65 per cent of total contract production in the early 1960s. Such firms use risk-sharing contracts to increase efficiency, increase volume and decrease short-run fluctuations in volume. Producers participate in contracts to reduce their risk and secure financing.

Other financing arrangements such as bank loans and feed company financing involve extending credit to producers for all or part of the feed and other production supplies. The turkeys are owned by the producer and the loan is usually secured by a mortgage on property other than the turkeys.

Contracts vary by region. In the Northeast, there is little contracting except for hatching eggs. In the Midwest, most growers use conventional bank and feed company financing. In the West and South, there is much risk-sharing contract production. (2)

Raising Rent Shares One Way Tenants, Landlords Meet Higher Input Prices

The higher price of farmland is having repercussions on the leasing arrangements owners make with their tenants.

In the past, sharing half the crop was considered the limit. Those who broke this institutional barrier were severely censured by their neighbors.

Of late, however, some share leases have been rising: Tenants who formerly paid one-third of their crops for rent have been raised to two-fifths; some who used to pay two-fifths now give the landlord half of the crop. In many cases landlords contribute some inputs, such as seed and harvesting costs.

But what happens when the landlord asks for more than half the crop? It depends on the agreement. It might, for instance, call for a 60 per cent rent payment. The landlord, presumably, would be willing to pay for 60 per cent of the fertilizer, seed, crop expenses, insecticides and other inputs.

Some problems of management control would probably emerge under this amount of sharing. A landlord who furnishes more than half the total inputs might also want the biggest voice in making decisions.

Knowledge of the subject needs to be taken into consideration when determining just who has the most to say about making farming decisions. The tenant is closer to the scene and might be a much better judge of how much fertilizer to use, what kind of seed to plant, where to buy it or when to cultivate.

If tenants are required to pay the higher rent and the landlord exercises almost complete control, why bother with tenants at all? The owner may wish to take over complete control. As long as no livestock requiring daily care are involved, the necessary field oper-

ations can be contracted out to custom operators.

Shifting managerial functions to a third party is still another alternative method of farming. A contracting firm would run the farm, assuming a risk position with the owner. Operating budgets prepared for such enterprises are based upon anticipated high-level returns from applying the best-known technology. (3)

Off-Farm Jobs, Advancing Age Two Reasons Farmers Taper Off Dairying

Economic changes come in all sizes—short-run, long-range and intermediate adjustments.

Economists recently set out to get more specific information about the intermediate changes in milk production—changes that take more than a year, but no more than five years, to show up. The work was a cooperative venture of economists in ERS and the Minnesota Agricultural Experiment Station.

To get their answers, the researchers formed a 327-member panel from the dairy farmers in the state, surveying the operators in 1958 and again in 1961, '62 and '63.

The survey considered such things as short- and long-run crop prices, prices of livestock and livestock products, available labor, income levels, the age of the farm operator and his family composition.

The five-year study turned up a number of factors which affect the farmer's work and help produce the changes in the number of dairy cows in the state.

A few of the highlights are:

Size of the dairy herd. The larger the initial herd size in 1958, the larger the increase in production by 1963. In other words, larger producers got larger at a faster pace than others during the period studied.

Absence of the enterprise. Virtually no farmer without a

dairy enterprise in 1958 was planning to add one by 1963. Thus, dairying was not attracting new entrants during the study period.

Excess building capacity. Farmers with unused capacity apparently had already decided in 1958 to curtail or eliminate the dairy enterprise and were willing to let facilities stand idle. Thus, unused facilities did not provide adequate incentive for expanded dairy production.

Off-farm employment. Many farmers engaged in or planning off-farm employment had already reduced or planned to reduce livestock enterprises, particularly dairy. If part-time farmers, they favored crop enterprises over livestock largely because of reduced labor requirements.

Age of operator. As a farmer's age increased, rate of expansion decreased. This negative relationship was true over the entire age range of the farmers making up the panel. (4)

Upward Trend in Farm Wage Rates Expected To Continue During 1967

Farm wage rates are expected to continue their upward climb this year—partly as a result of the inclusion of some farmworkers under the general minimum wage law, partly because of the generally tight labor market and competition from better paying nonfarm job opportunities.

For 1966 the national average of all types of cash farm wage rates is expected to average about \$1.03 an hour—up 8 cents from 1965 and four times the 1960-64 annual increase.

Higher wage rates this year and last are encouraging the substitution of capital for labor to reduce both the cost and amount of labor used in farming. Lower acreages of some high labor-using crops in 1966, particularly cotton, also helped push the trend in this direction. (5)

a
taste
of the
islands



Hawaii's Kona coffee is combining island mystique and better plant varieties in making its bid for a place in the coffee market.

In the competition for supermarket shelf space, Hawaiian Kona coffee appears to be able to hold its own.

This is good news to producers who have been promoting Kona as a specialty coffee. Prior to this, Kona was used as a blending agent in numerous popular brands of coffee and, as such, was dependent upon world coffee prices. The long-range goal of the current promotion program is to make Kona coffee less dependent on world market prices.

In the past 14 years, coffee consumption in the United States has

increased from 2.44 to 2.79 cups per day. The proportion of instant coffee consumed per day has increased from 8.1 to 27.2 per cent of the total. Thus, the future looks good for coffees in general and for instant coffees in particular.

A market survey of instant coffee sales in 14 stores in Hawaii showed that Brand "A" sold an average of one and a half cases per store per week, while both brand "B" and Kona averaged three-fourths a case weekly. This was a blanket average without regard to differences in promotional

displays in the stores, special price cuts for brands "A" and "B" or the increase that took place in all coffee prices during the period of the survey.

With one supermarket survey indicating that most nonperishable items move from market shelves at a rate of less than one case per week, it is no surprise that all 14 store managers considered instant Kona a good seller. Similar success is needed in mainland markets to completely solve problems of producers.

The producers of Hawaiian

Taste Tests Are Clue to Sales Appeal

The "Hawaiian mystique" has impelled grandmothers to don muumuu's and backyard chefs to stage luau's.

Is it potent enough to make consumers clamor for Hawaii's Kona coffee? Some 1,000 volunteer taste-testers in New York City, Honolulu and Washington, D.C., aren't sure.

"Blind" and open-eyed, they compared instant and ground brews of the Kona coffee and also matched them agains: three leading commercial blends.

In New York and Hawaii, tasters rated Kona ground brews about the same as Kona instant, but Washingtonians definitely preferred the instant.

In all three cities, Kona instant was ranked at least as high as two of the other three instant brands sampled. Results were the reverse when Kona brewed coffee competed against the other brewed blends.

In Washington, tasters were not aware at any time which coffee was Kona. But in the two other cities, tasters reacted favorably when they were told that one of the samples was a product of Hawaii. In Honolulu, this could be construed as loyalty to a homegrown crop, but the same reaction in New York suggests to Kona promoters that the island mystique could be a sales factor. (7)

Kona coffee are not pinning their hopes on advertising alone.

New coffee plant varieties and culture practices to increase both quality and crop yield are being tested; and agricultural engineers are developing a mechanical coffee harvester to reduce labor costs and lower the price to the consumer. (6)

Molasses in Feed Proves Popular With Both Farmer and His Herd

Livestock have acquired a taste for one of man's old favorites, molasses.

Use of industrial molasses as a supplement to livestock feeds has increased so rapidly since 1945 that it now accounts for usage of three-fourths of industrial molasses production. The proportion of molasses used in mixed feeds varies between 3.5 and 12 per cent of the weight of the mixture.

Even the stickiness of molasses is a plus-factor, as far as the feed manufacturers are concerned. It reduces dust problems in feed mixing plants. However, if too much molasses is used, the feed hardens and becomes unsalable.

Because it has an agreeable taste and odor, sugarcane molasses is favored for feed.

Beet molasses and hydrol—a corn by-product—are frequently blended with cane molasses for a more economical mixture, but the cane content must be relatively high. Retailers have found that prospective buyers like to see, feel and smell molasses in the feed.

Pelletized and crumble feeds, widely used since 1960, require much less molasses than standard feeds. The percentage of industrial molasses mixed into these feeds is between 3 and 7 per cent—about 5 to 9 per cent below molasses content in standard feeds. Although molasses substitutes and concentrates are available, they are too costly for general use and tend to be used only when molasses prices rise sharply. (8)

Exempt Carriers for Farm Products Are Hard to Tell From Other Trucks

Watching the trucks go by? How do you spot the carrier operating with the exemption for farm products? It isn't easy.

There isn't much difference between the exempt and the non-exempt trucker. But this is what the exempt carrier would look like, if it matched the statistical norm.

For one thing, the firm would be small, both in absolute terms and relative to the regulated motor carrier firms. The modal size of fleet for the exempt carrier was two to three truck-tractors, compared with 20 to 49 truck tractors for the regulated motor carriers.

The modal year and the lifetime mileages of the truck tractors would be of little help in identification. The difference in these characteristics between the exempt and the regulated carrier was slight to nonexistent.

The exempt carriers did seem to operate their vehicles more miles a year, but the difference was not statistically significant.

Exempt motor carriers operate more vehicles on round trips with loads in only one direction—63 per cent of such round trips, compared with 46 per cent for the regulated carriers.

Bogus Blossoms

Take another look. That rare begonia on the florist's shelf may well be a common species of polyethylene.

Eight out of 10 U.S. florists sell artificial plants and flowers along with the fresh ones. They add up to 7 per cent of sales for the shops handling them.

Florists estimate that two out of five purchases of the artificial blooms are for home use. One in five is destined for use in a cemetery and nearly as many are used in hospitals. (9)

Even so, most exempt vehicles are on the road all year long.

Exempt motor carriers operated 30,483 motor vehicles in interstate hauls in 1963, based on figures from the Census of Transportation. But less than 5 per cent of all for-hire trucks in the United States were operated under the agricultural exemption. (10)

Hair Today, Gone Tomorrow, Could Add to Profits of Hide Industry

Take a little thing like cleaning the hair off hides.

Modify the process, find a better way, a better place to do it. There's a good chance the industry could save itself an important part of the cost of turning hides into leather.

Removing the hair—beamming—has traditionally been done at the tannery after curing the hides.

By shifting the beamhouses to the source of supply—the packinghouses—some significant savings could be found.

First off, there would no longer be a need to cure the hides. And with that change alone there is a chance to reduce total marketing costs about 10 per cent.

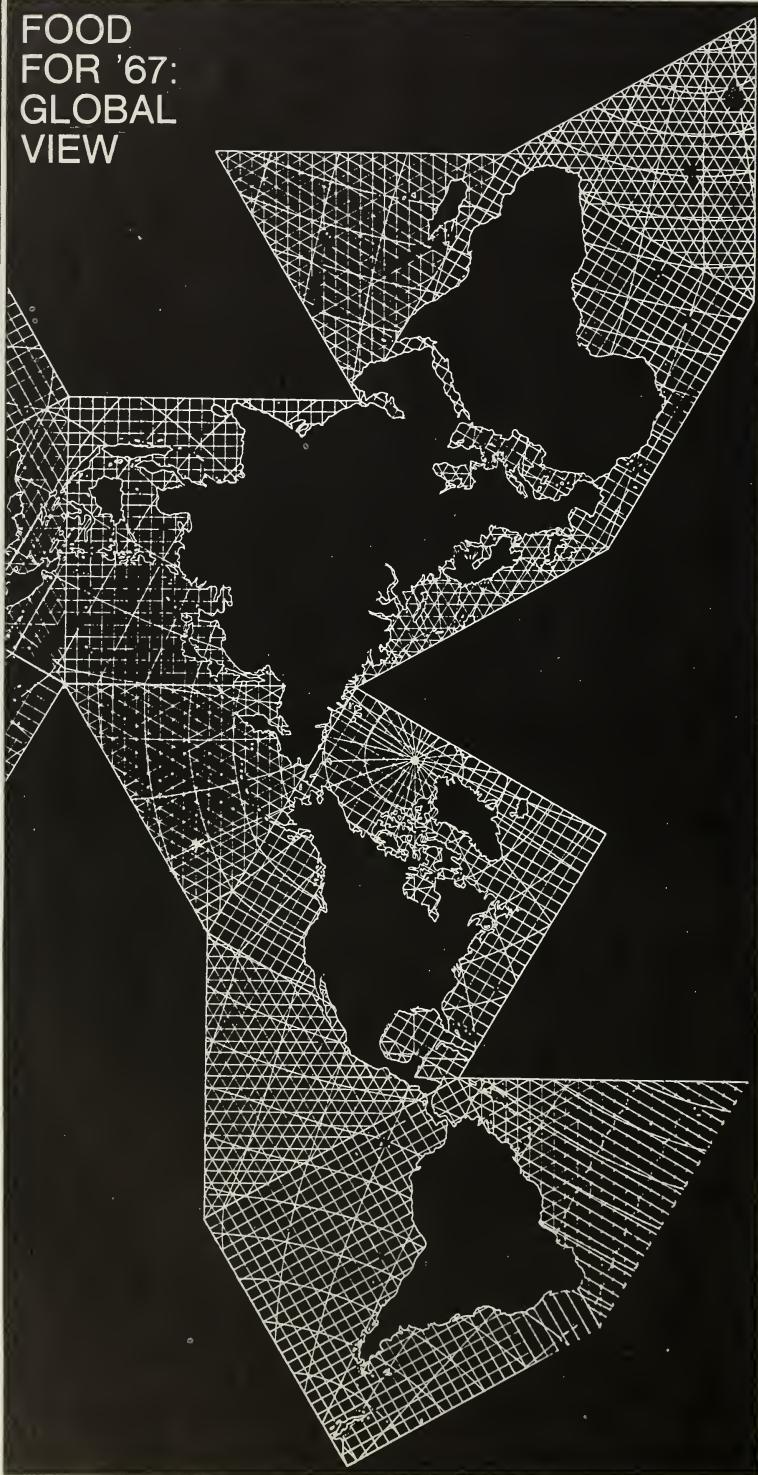
Transportation costs, too, could be cut. On a Midwest to New England shipment, for example, the transportation costs could be reduced by about a third, or 25 cents a hide.

And shifting the beamhouse from tannery to packinghouse could result in a better quality leather. The improved quality would come about from better physical properties, such as stronger leather that won't crack, and a better grain surface.

The returns on investment—of more immediate concern to management—might also be greater.

Capital investment for the smaller model runs to \$192,000; profits to \$115,000. The larger model called for an investment of \$330,000; showed an annual profit of \$305,000. (11)

FOOD FOR '67: GLOBAL VIEW



In race between stork and plow, world food output holds slight edge over rising population numbers.

The world's cupboard won't be overflowing, or even full, this year. But there should be more food and fiber to go around than last year.

In the distribution process, there'll be plenty for a few, adequacy for some, not enough for many. It's an old story.

Among highlights of the agricultural picture:

—Global output of farm products in 1966 continued the long-term upward trend. In the past decade, the per capita trend, however, has been held down in less-developed countries by growing population.

—The USSR's agricultural output is highest ever attained.

—World wheat stocks at the end of the 1966 season were the lowest in 13 years, but record harvests will provide an increase in 1967 stocks.

—Consumption of cotton this year will exceed production for the first time in five years.

Most major crops fared well in 1966. World output of cereals, potatoes, vegetable oils and sugar each rose about 5 per cent. The gain in livestock food products almost matched the gain of around 2 per cent in world population.

Wheat and rice production resumed their upward trend last year in the major producing countries. (In 1965, harvests were reduced by drought in the USSR and the Indian subcontinent.)

Though world demand for rice this year is likely to exceed demand, the gap will continue to be filled by wheat and other grains.

As always, nature conspired against some members of man's family. The calamitous November 1966 floods in Italy took a heavy toll in livestock and hindered fall planting. Drought hit crops in

PER CAPITA WORLD AGRICULTURAL PRODUCTION, 1960-66 (1957-59=100)

Region	1960	1961	1962	1963	1964	1965	Preliminary 1966
United States	103	102	102	104	102	104	100
Canada	104	90	109	116	105	114	124
Latin America	98	101	100	101	97	103	97
Western Europe	106	103	109	111	110	109	112
Eastern Europe	106	103	101	105	109	109	112
Soviet Union	98	102	103	96	109	102	115
Japan	106	106	110	107	109	108	110
Communist Asia	81	78	83	83	85	84	83
Other Far East	105	106	102	105	106	98	102
Western Asia	95	99	100	103	102	102	103
Republic of South Africa	101	108	107	111	107	107	107
Other Africa	104	97	104	103	103	101	99
Australia and New Zealand	104	103	107	109	112	103	108
World (Incl. Communist Asia)	99	99	100	101	102	100	100
World (excl. Communist Asia)	103	103	103	104	104	102	104
Developed ¹	103	103	105	106	108	106	110
Less developed ²	103	103	102	103	103	101	101

¹ United States, Canada, Europe, Soviet Union, Japan, Republic of South Africa, Australia and New Zealand. ² Latin America, Other Far East, Western Asia, Other Africa.

the Andes, parts of India and West Asia, and most of North Africa. Too much rain hurt Brazil. Storms slashed Caribbean output. Foot-and-mouth disease was costly to the Netherlands. Yet many bright spots appear in a regional view.

In *North America*, production rose 10 per cent in Canada over record 1965 output, but declined 2 per cent in the U.S.

The drop in U.S. surplus stocks of grain, fats and oils and dairy products has led to a change in food aid policy—now linked to foreign self-help efforts.

Latin American agricultural output registered an overall decline despite gains in Argentina and the six Central American nations. Strong agricultural import demand is likely for the area in general.

While Mexico's production topped the 1965 record level, per capita output slipped. Government price policy encouraged a shift of some land from wheat and corn to sorghum and oilseeds.

In *Western Europe*, adverse weather led to a shift from winter food grains to spring feed crops. Outside of West Germany,

major EEC agricultural importer, wheat harvests declined—as much as 20 per cent in France. Otherwise, food output was generally close to average or better, with feed grain supplies very high.

The USSR and *Eastern Europe* were favored by rare good weather and reaped excellent harvests in most areas.

The Soviet Union boosted its output to a new high—8 per cent above the 1964 peak on a total basis and over 5 per cent higher per capita. Its 1966 grain crop is estimated at an exceptional 135 million tons, 75 million in wheat.

Much of the bigger USSR grain supply may be used as a hedge against lean years and for rising domestic demand, but some export spurt is likely.

West Asia managed to exceed last year's production level in spite of weather hazards that plagued most of the area. Due almost entirely to good harvests in Turkey and Iran, the region's 1966 agricultural output was 25 per cent above that of eight years ago—about the same increase as in people to feed and clothe.

In *Africa* as a whole there was no significant improvement from

1965 in outturn of food and fiber, although East Africa and most of South Africa recovered from the previous year's drought.

Elsewhere, food shortages are the prospect for *Mainland China* after another bad crop year. *India's* 1967 import requirements of food grains will probably be as heavy as last year, although a peak wheat crop—yet to be harvested—might ease the situation. Farm output was high in *Australia* and *New Zealand*. (12)

Added Fertilizer Usage Is Only One Part of Increasing Crop Yields

As the world population expands—by 2 or 3 per cent a year in many countries—so does the demand for food and other farm products.

An increase in agricultural production of 4 or 5 per cent a year is needed to meet the increased demand generated by population growth and by the increases in income (and, therefore, standards of living) around the world.

The less developed countries in the world have about one-half as

much arable land per person as more developed countries. Also, population density in many of these countries precludes expanding the amount of land devoted to agriculture. Therefore, the main source of increased production lies in increasing crop yields.

That both the fertilizer rates and crop yields in Japan, for example, are among the highest in the world illustrates that the two factors go hand in hand. Conversely, the low level of fertilizer use in less developed countries is a major factor responsible for lower levels of crop production. Therefore, the solution to the problem of meeting increasing food demands would seem to reside in the formula: Addition of fertilizer equals increased crop yield.

However, the situation is not quite that simple. Among the problems in executing this formula are educating farmers in the use of fertilizer and making fertilizer available at a price the farmer can afford. When government subsidies, expanded credit to farmers and industrial innovations to decrease the costs per unit of fertilizer are introduced into the formula, the problem moves out of the area of agricultural technology and into the area of politics and international relations.

At present, the less developed countries would need to add 50 million metric tons more fertilizer nutrients to the 3.5 million tons they now use in order to

equal the amount used per person in more developed regions. It is estimated that if all of the 50 million-ton increase were used on grains, it would double total grain production. However, grain production per person in these countries would still average one-third less than is produced in the more developed countries. Also, while this figure estimates projected minimal needs for today's world population, it does not consider the needs generated by the rapid population growth.

The fertilizer formula represents only one of many technological advances that can be applied in less developed areas to meet the world demand for food.

Others are better seed, tools and equipment and more effective pest and weed control. (13)

Cyprus' Farm Exports Grow but Need Persists for Staple Food Imports

Copper gets its name from the ancient country of Cyprus. And Cyprus, since the Bronze Age, has gotten much of its export income from sales of copper and other high-grade ores.

Unfortunately, after several millenia of mining, Cyprus' mineral deposits are approaching exhaustion and export revenues from this source are starting to dwindle, too. Since 1962 receipts from sales of farm products abroad have topped those earned from mineral products.

In 1964 agricultural exports

amounted to nearly \$32 million, over 60 per cent of the value of all Cypriot exports. Fruits and vegetables made up about 70 per cent of the 1964 total.

The United Kingdom was the No. 1 market for farm products, taking about 65 per cent, by value, of the island's agricultural exports in 1964. Next biggest outlets were the communist countries (where Cyprus is finding increasingly larger markets for such quantities of fruits, tobacco and potatoes as are not sold in the West) with about 10 per cent. Cypriot farm sales to the European Economic Community (EEC) amounted to about 8 per cent of total value in 1964; sales to the U.S., about 3 per cent.

Although the value of Cyprus' food exports generally tops that of food imports, the island is only about 60 per cent self-sufficient in staple foods in most years. Main deficiencies in domestic production are in dairy products, meats, fats and oils, sugar and grains.

In 1964 Cyprus imported some \$24 million worth of agricultural products. Main suppliers were the EEC countries, with 22 per cent of this import total; the United Kingdom, with 18 per cent; and the U.S., 16 per cent.

Wheat is the top U.S. export to Cyprus. In 1964 we sold the island some \$3.2 million worth of wheat and donated about \$59,000 worth of wheat flour under Title II of P.L. 480 (food for relief or charity). (14)

Foreign Spotlight

SPAIN. Building or expanding oilseed crushing plants has been banned for one year, effective October 5, 1966, to protect the market for the big olive oil output Spain expects in the 1966/67 crop year. Spain's oilseed crushing capacity of about 500,000 metric tons is four times that of 1963. In 1965, the U.S. supplied 95 per cent (\$38 million worth) of Spain's 340,000-ton

imports of soybeans.

LATIN AMERICA. Venezuela, Colombia, Peru, Ecuador and Chile plan to form a small common market within the larger 10-member Free Trade Association (LAFTA). Their plans include a multinational petrochemical industry.

ITALY. The second five-year plan (1966-70) was formally approved by the Italian Parliament in November 1966. The plan calls for a total investment of \$1.44 billion in agriculture.

Consumers Spent \$92 Billion on Food At Grocery Checkout Counters in '66

When 1966's final figures for food expenditures are added up they are expected to reach around \$92 billion, compared with \$85.4 billion in 1965.

While some increase in food bills can be expected again this year, it's not likely to be as much as the 7 to 8 per cent hike in 1966—largest yearly rise in 15 years.

Food expenses (excluding alcoholic beverages) averaged around \$465 per person last year—\$26 more than the year before.

Higher retail food prices, up 4½ to 5 per cent, accounted for much of the increase. The rest of it was a matter of more people and bigger appetites. Both population and food consumption rose about 1 per cent.

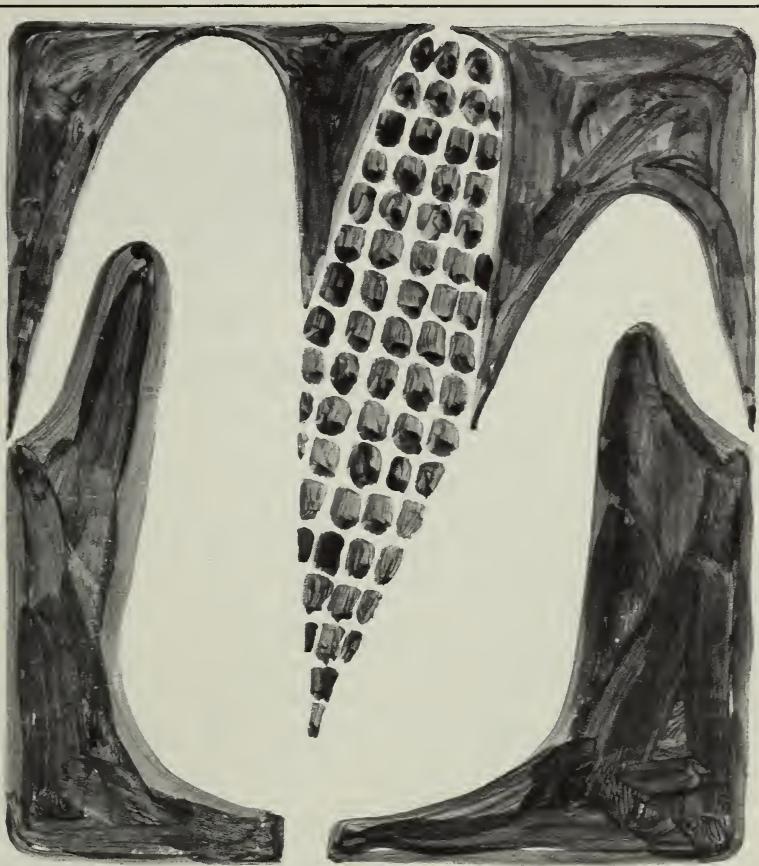
Sales by retail food stores leveled off after February 1966 to an average value of a little under \$6 billion a month. By midyear (July) they were only 7 per cent above a year earlier; in February they had been 11 per cent higher.

At the same time, sales by eating and drinking establishments continued to rise. By July they topped \$2 billion a month for the first time. This was 12 per cent above the comparable 1965 figure for sales in away-from-home places serving food and beverages.

What percentage of their income did American families pay for food last year?

About 18.2 per cent, or approximately the same as in 1965. The percentage will probably be down slightly this year. It has declined in 11 out of the past 15 years, and each year since 1958 when 21 per cent of income was spent on food.

Incomes are much bigger today than they were in 1950. The average family income in 1966 was around 7 per cent more than the \$6,900 average (median) of 1965, which in turn was over double the \$3,319 average of 1950. (16)



CORN OFF THE COB: We eat the grain equivalent of more than a pound of corn every week in corn products. It's the almost unnoticed corn in our diets—the corn syrup, starch, prepared cereals and all the other processed foods made from corn. We're now eating over 32 pounds of food products made from corn, equal to about 56 pounds of corn as grain. The increased use of corn in recent years is largely the result of more corn sugar and syrup in our diets. Per capita consumption of prepared cereals, hominy and grits is also on the rise. (17)

Year	Consumption of corn products per person ¹						Grain equivalent
	Sirup	Sugar	Starch	Cornmeal and flour	Hominy and grits	Prepared cereals	
Pounds							
1951	9.0	4.1	1.9	10.8	2.6	1.6	49.0
1953	8.8	4.0	1.8	9.8	2.4	1.6	46.2
1955	9.0	3.7	2.0	8.7	2.7	1.7	45.5
1957	8.9	3.2	1.9	7.9	3.2	1.7	44.9
1959	9.8	3.9	1.9	7.0	3.8	1.8	47.3
1961	10.6	3.7	1.8	6.3	4.2	1.9	48.0
1963	12.3	4.5	1.8	5.9	4.7	2.1	53.9
1965 ²	13.6	4.5	1.8	5.7	4.7	2.1	56.4

¹ Includes Alaska and Hawaii beginning 1960; excludes quantities used in alcoholic beverages. Does not include sweet corn, whether eaten off the cob, canned or frozen. ² Preliminary.

RESOURCE REQUIREMENTS, COSTS, AND EXPECTED RETURNS FOR ALTERNATIVE CROP AND LIVESTOCK ENTERPRISES, PALOUSE WHEAT-PEA AREA. E. L. Michalson and I. A. Noteboom, Farm Production Economics Division, in cooperation with the Washington Agricultural Experiment Station. Wash. Agri. Expt. Sta. Bul. 671.

The purpose of this report is to provide information for persons involved in guiding and planning adjustments in crop rotation and livestock enterprises.

PART-TIME FARMING IN TWO AREAS OF SOUTHERN MICHIGAN, 1959 & 1963: CHANGES AND SIMILARITIES. R. D. Duvick, Farm Production Economics Division, in cooperation with the Michigan Agricultural Experiment Station. Mich. Agri. Expt. Sta. Art. 49-8.

Comparisons between the 1959 and the 1963 part-time farmers in Michigan can be drawn from this survey. Such comparisons consider the jobs involved, characteristics of part-time farmers themselves, job adjustments made during the period and relationships between part-time and full-time farmers. The survey indicates a larger proportion of part-time farmers in 1963, but 75 per cent of the men interviewed also held full-time non-farm jobs.

FACTORS ASSOCIATED WITH THE COST OF PRODUCING MILK FOR HIGHER PRODUCING DAIRY HERDS IN GEORGIA. J. D. Brown, Georgia Agricultural Experiment Stations, in cooperation with the Farm Production Economics Division. Ga. Agri. Expt. Sta. Bul. N.S. 170.

This is the second publication dealing with milk production costs among higher producing Georgia dairy herds. The first publication, *Milk Production Costs for Georgia's Higher Producing Herds*, Ga. Agri. Expt. Sta. Bul. N.S. 154, dealt with milk production inputs, and costs and returns.



recent publications

The publications listed here are issued by the Economic Research Service and cooperatively by the state universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective states.

SUGAR BEETS: ECONOMIES OF MACHINERY INVESTMENT. W. W. Pawson and A. G. Nelson, Arizona Agriculture Experiment Station, in cooperation with the Farm Production Economics Division. Ariz. Agri. Expt. Sta. Rpt. 238.

The purpose of this report is to provide detailed information regarding the costs of special machinery for sugar beet production.

COSTS OF SELECTED SIZES AND TYPES OF FARM MACHINERY ON IRRIGATED FARMS: SOUTH PLATTE VALLEY, COLORADO. E. C. Hunter, Farm Production Economics Division, in cooperation with Colorado State University. Colo. State Univ. Unnumb. Pub.

This report shows average value, hours of use, and costs for tractors and machines in 1965 that are most frequently used on irrigated farms.

USE OF A PRODUCER PANEL TO ESTIMATE CHANGES IN AGRICULTURAL PRODUCTION IN MINNESOTA'S DAIRY BELT. P. E. Tix and W. B. Sundquist, Farm Production Economics Division, in cooperation with the Minnesota Agricultural Experiment Station. Minn. Agri. Expt. Sta. Tech. Bul. 251.

The objectives of this report are to discuss briefly the merits and problems of some conventional procedures for predicting agricultural supply. It also presents a discussion of the potential use of another procedure, a producer panel, both as an independent estimator of supply and as a supplement to the other procedures.

THE ECONOMICS OF DAIRY MARKETING: AN ANNOTATED BIBLIOGRAPHY. A. C. Manchester, Marketing Economics Division. ERS-290.

This bibliography should be used in conjunction with its companion work: Wolf, A. F., *A Bibliography On Costs, Margins, and Efficiency In Marketing Dairy Products*, unnumbered publication, Economic Research Service, March '65. Here are two annotated bibliographies which complement one another to cover all areas of dairy marketing.

THE 1966 AMENDMENTS TO PUBLIC LAW 480. M. E. Abel, Economic Research Service. ERS-For. 176.

Public Law 480 deals with the expansion of U.S. export markets for agricultural commodities. The programs provided for in these amendments also attempt to stimulate the agricultural and general economic development of the newly emerging countries of the world.

Under Public Law 480 and its amendments, U.S. food aid programs are viewed as an interim form of foreign assistance which will continue only until the new nations are capable of realizing the benefits of their own agricultural potentials and output.

THE AFRICA AND WEST ASIA AGRICULTURAL SITUATION. Africa and Middle East Branch, Foreign Regional Analysis Division. ERS-For. 164.

Bad weather has troubled the western part of North Africa and the southwestern part of Asia; despite this, there is the probability of a high in crop production in 1966. This report gives an analysis of the Afro-Asian agricultural situation, crop expectations and production figures. If Turkey's grain crop fulfills expectations, the nation will be self-sufficient for grain this year.

PRICE WARS IN CITY MILK MARKETS. E. S. Harris, Marketing Economics Division. AER-100.

The recent outbreaks of milk price war are of interest to consumer and marketer alike. This report examines both the precipitating causes and the changes brought about by price wars in the city milk market. It also appraises the beneficial and the harmful aspects of price wars within the framework of competitive marketing practices of the city milk market. The studies were made of 13 price wars across the U.S. and this report is drawn from the findings and from other sources.

THE COMPETITIVE POSITION OF U.S. FARM PRODUCTS IN THE JAPANESE MARKET. H. H. Spurlock, Foreign Regional Analysis Division. FAER-32.

This study describes and appraises the extent, nature and sources of competition affecting

sales of U.S. farm products in the Japanese market between 1950 and 1964. Recent trends and developments are indicative of what lies ahead in demand and competition in the agricultural commodities market. Farm resources, production trends and farm policies are considered. Emphasis has been given to the role of Japan as commodities importer and export marketer.

HARVESTING COSTS FOR THE SELF-PROPELLED GREEN PEA COMBINE — EASTERN WASHINGTON AND EASTERN OREGON. J. B. Duff and N. K. Whittlesey, Washington Agricultural Experiment Station, in cooperation with the Farm Production Economics Division. Wash. Agri. Expt. Sta. Circular 468.

Here in graphs, tables and text is an evaluation of the Pacific Northwest green pea industry. Information for this study was derived from engineering studies, manufacturers' records, processors' and producers' observations.

HOMEMAKERS' USE OF AND OPINIONS ABOUT SELECTED FRUITS AND FRUIT PRODUCTS. L. Y. Clayton, Statistical Reporting Service. MRR-765.

This is a study of consumer attitudes towards fresh fruits and fruit products; it also indicates trends and markets for fruits. The report gives opinions on a wide range of buyer preferences from packaging to coloring to taste and size. There are also tables and charts showing the consumption of individual fruits and products.

POTENTIAL SUPPLY AND REPLACEMENT OF RURAL MALES OF LABOR FORCE AGE: 1960-70. G. K. Bowles, C. L. Beale and B. S. Bradshaw, Economic Development Division. Stat. Bul. 378.

This detailed statistical study provides a key to understanding the problem of rural labor replacement. It covers the entire rural population instead of merely the farm-rural population as was previously done. The report is national in scope. These replacement studies are valuable as a means of indicating the degree to which a segment of the population is replacing itself over time and it gives a projection of the composition and size of the farm labor force in 1970.

AGRICULTURAL TRADE OF THE EUROPEAN ECONOMIC COMMUNITY: 1959-1964. Trade Statistics and Analysis Branch, Foreign Development and Trade Division. ERS-For. 165.

This report contains tables showing agricultural trade of the European Economic Community (EEC) between 1959-65. The report continues a previous trade summary focusing on EEC imports from 1951 to 1962. Statistics for agricultural trade between EEC countries and other countries or world trading areas are summarized by origin and destination. In addition, the total agricultural trade among the EEC countries is shown. Agricultural product trade was valued at about \$16 billion in 1964, 46 per cent above the total value of \$10.9 billion in 1959.

Numbers in parentheses at end of stories refer to sources listed below:

1. M. Harris and D. T. Massey, Vertical Coordination via Contract Farming (M); 2. W. W. Gallimore, Contracting and Other Integrating Arrangements in the Turkey Industry, MRR-734 (P); 3. R. L. Michell and F. J. Reiss (SM); 4. W. B. Sundquist and P. E. Tix, Use of a Producer Panel to Estimate Changes in Agricultural Production in Minnesota's Dairy Belt, Minn. Agri. Expt. Sta. Tech. Bul. 251 (P*); 5. Farm Cost Situation, FCS-38 (P); 6. H. R. Linstrom and J. T. Keeler, Market Penetration of Instant Kona Coffee in Honolulu, Hawaii (M); 7. H. R. Linstrom and J. A. Bayton, Consumer Acceptance of Hawaiian (Kona) Coffee (M); 8. L. C. Larkin, Marketing Industrial Molasses in the United States (M); 9. N. Havas, Profile of the Retail Florist Industry, 1964, MRR-741 (P); 10. W. Miklius, Comparison of For-Hire Motor Carriers Operating Under

- the Agricultural Exemption with Regulated Motor Carriers, MRR-769 (P); 11. J. W. Thompson, Costs for Beaming Hides at the Source of Supply (M); 12. Foreign Regional Analysis Division, 1967 World Agricultural Situation, FAER-33 (P); 13. R. P. Christensen, Fertilizer and the Economics of Crop Production (S); 14. H. H. Tegeler, Cyprus' Agricultural Economy in Brief, ERS-For. 159 (P); 15. Foreign Regional Analysis Division (SM); 16. National Food Situation, NFS-118 (P); 17. M. Clough, "Food Consumption of Corn, Oats and Barley Products," Natl. Food Situa., NFS-117 (P); 18. Poultry and Egg Situation, PES-244 (P).
*Speech (S); published report (P); unpublished manuscript (M); special material (SM); *State publications may be obtained only by writing to the experiment station or university cited.*

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The Eggs And Us

More and bigger omelets are likely to be on menus of 1967.

The nation's egg output this year is expected to be the largest in over a decade—up around 5½ million cases from last year's estimated 182 million.

With more eggs in the supply basket, it's likely that civilian per capita consumption will go up. It's been on a downturn the past 15 years and since 1951 has dropped steadily from 393 eggs per person per year to about 301 in 1966.

While it seems certain that supplies will increase rapidly at least through September, the extent to which demand may strengthen is not so clear.

During the first half of the year at least, more eggs will be used for hatching than in 1966. Military demand for shell eggs could also run higher.

However, larger supplies of other high proteins are becoming available. And while consumer incomes are still at record levels, they may not rise as rapidly in the coming months as they did a year earlier.

In any case, egg prices will probably be lower this year than last, with less-than-average seasonal variations.

No two years ever turn out to be exactly alike. But the present buildup in egg production that began late last year appears to be similar to the unusually large expansion that began in late 1958 and led to depressed prices to producers in 1959. (18)

THE FARM INDEX

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Numbers in parentheses at end of stories refer to sources listed at end of issue.

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The contents of this magazine are based largely on research of the Economic Research Service and on material developed in cooperation with state agricultural experiment stations. All articles may be reprinted without permission. For information about the contents, write the editor, The Farm Index, Office of Management Services, U.S. Department of Agriculture, Washington, D. C. 20250. Use of funds for printing this publication approved by the Director of the Bureau of the Budget, May 24, 1962. Subscription orders should be sent to the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Price 20 cents (single copy). Subscription price: \$2.00 per year; 75 cents additional for foreign mailing.

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